

## ABSTRACT

### WH-SUBJECTS IN THE SHAMMARI DIALECT OF ARABIC

The movement of wh-subject questions is a controversial matter since there is no overt displacement or auxiliary inversion. In this thesis, I explore two approaches that dealt with this phenomenon the first approach is the Vacuous Movement Hypotheses (VMH) suggested by George (1980) and embraced by Chomsky (1986); the second approach is a hybrid movement approach suggested by Agbayani (2000, 2007). The purpose of this thesis is to show that wh-subject elements do move locally to the [Spec-CP] unlike what the VMH claims. In this thesis, I provide empirical evidence from the Shammari dialect of Arabic (SA) which shows a visible overt movement of the wh-subject to [SPEC-CP]. Furthermore, I investigate the phenomenon of wh-subject movement adopting a feature movement (or Move F) approach through which I posit a solution to some of the problems that a full movement approach to subject wh questions fails to address. Many of these problems fundamentally derive from the VMH. Finally, by adopting a feature movement approach, I present positive evidence supporting the Move F approach in SA.

Hammad Alshammari  
August 2018



WH-SUBJECTS IN THE SHAMMARI DIALECT OF ARABIC

by  
Hammad Alshammari

A thesis  
submitted in partial  
fulfillment of the requirements for the degree of  
Master of Arts in Linguistics  
in the College of Arts and Humanities  
California State University, Fresno  
August 2018



APPROVED

For the Department of Linguistics:

We, the undersigned, certify that the thesis of the following student meets the required standards of scholarship, format, and style of the university and the student's graduate degree program for the awarding of the master's degree.

\_\_\_\_\_  
Hammad Alshammari  
Thesis Author

\_\_\_\_\_  
John Boyle (Chair) Linguistics

\_\_\_\_\_  
Brian Agbayani Linguistics

\_\_\_\_\_  
Chris Golston Linguistics

For the University Graduate Committee:

\_\_\_\_\_  
Dean, Division of Graduate Studies

AUTHORIZATION FOR REPRODUCTION  
OF MASTER'S THESIS

    X     I grant permission for the reproduction of this thesis in part or in its entirety without further authorization from me, on the condition that the person or agency requesting reproduction absorbs the cost and provides proper acknowledgment of authorship.

           Permission to reproduce this thesis in part or in its entirety must be obtained from me.

Signature of thesis author: \_\_\_\_\_

## ACKNOWLEDGMENTS

Upon completion of my master's program, I would like to pay my thanks to all those people who helped me in achieving my goal. Whatever I have learned during these years is all due to these individuals who encouraged and helped me at every step. These years of my life were tough as I went through a lot of difficulties and hardships, but these special people didn't let me feel that I can't accomplish my aim. It was all because of these people that I am standing where I am now.

My first and foremost thanks goes to my mother and brothers, Salem and Abdullah, who supported me at every phase of life, and without them I am nothing. Family is the biggest support one can have, and with this support, any goal can be achieved. Dr. John Boyle, from whom I learned to investigate the phenomenon of linguistics and also to analyze them in the simplest way, is the person I would like to express my utmost gratitude to since he opened up my mind and made me observe things which I was unable to notice.

I would like to pay my special thanks to Dr. Jidong Chen who helped me in pursuing my dream, and encouraged me always to move forward in life in spite of all the problems and challenges that came my way throughout these years. She made me overcome all the hurdles and obstacles, and shaped my academic life. A person who is more like an angel in my life is Dr. Brian Agbayani. I simply can't thank him enough for being with me these years, and giving me all the knowledge I required. He is my role model, not only as a scholar but also as a human being. He never closed his doors for his students. The president of Northern Border University, Dr. Saeed Al Omer, had been a source of inspiration and a great support for me. Without him, I wouldn't be able to accomplish my goal. How can I forget Dr. Chris Golston who educated me on how to offer my thoughts and

ideas in a much better way? Lastly, I would pay my gratitude to all of my friends who made these years fun and educational.



## TABLE OF CONTENTS

	Page
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
CHAPTER 1: INTRODUCTION .....	1
1.1 The Shammari Dialect of Arabic .....	2
1.2 Literature Review .....	3
1.3 The Need for Direct Evidence Against the VMH.....	7
CHAPTER 2: THE WH-SUBJECT IN SA.....	15
2.1. Sluicing with F Move.....	25
CHAPTER 3: MOVE F EVIDENCE.....	27
CHAPTER 4: CONCLUSION .....	33
WORKS CITED .....	35

## LIST OF TABLES

	Page
TABLE 1. Agreement Affixes on Complementizer.....	31

## LIST OF FIGURES

	Page
Figure 1. The location of Shammari Dialect (modified from Lewis 2013: 12) .....	2

## CHAPTER 1: INTRODUCTION

The formation of Subject wh-questions is quite an interesting phenomenon, which raises challenging questions to the core of the Move approach within the Minimalist Program (Chomsky 1995, 1997). These questions include 1) - “Do wh-subjects move overtly or at LF? And 2) - “How does syntax derive wh-subject movement since there is no overt displacement or auxiliary inversion? In order to answer these questions, I explore two approaches that dealt with this phenomenon, the first approach is the Vacuous Movement Hypotheses (VMH) suggested by George (1980) and embraced by Chomsky (1986); the second approach is a hybrid movement approach suggested by Agbayani (2000, 2007).

In this thesis, I argue that there is overt “non-vacuous” movement in which wh-subjects move from the subject position in [SPEC, TP] to [SPEC, CP]. Furthermore, I investigate the phenomenon of wh-subject movement adopting feature movement (or Move F) approach, and I provide empirical evidence from the Shammari dialect of Arabic (SA) that shows visible overt movement of the wh-subject to [SPEC-CP]. Wh-subject movement is a controversial issue because it seems to be a different type of movement and can be distinguished from other types of movement involving wh-elements. The question is whether the wh-subject element moves to [SPEC, CP], or stays in-situ in [SPEC, TP]. In this thesis, I show that it does move contrary to what the VMH suggests. After providing data that shows movement of the wh-subject, I posit a solution to some of the problems that face a full movement approach to subject wh questions. These problems fundamentally derive from the VMH. By adopting a feature movement approach, I present positive evidence supporting a Move F approach in SA.

The thesis is organized as follows: in the first chapter, I provide a brief description of SA, and I address previous work that has been conducted on wh-

subject movement. In chapter two, I explore *wh*-subjects in SA and provide significant evidence to show that the *wh*-subject element undergoes movement from the subject position in [SPEC, TP]. Furthermore, I resolve the issue of co-occurrence of the complementizer in *wh*-subject questions that exists in SA. In the third chapter, I address feature movement in depth and explore the empirical evidence that is provided by SA. Finally, chapter four provides a brief conclusion.

### 1.1 The Shammari Dialect of Arabic

Shammari is a variety of the Arabic language spoken by the tribe of Shammar ‘tayy’ and is often called the North Najdi type according to Ingham (1982). Prochazka, (1988) states that Shammari’s inventories of suffixed pronouns distinguish it from other subgroups of the Najdi dialects. The Shammari tribe consists of more than two-million members and the dialect is spoken from the central and the northern parts of Saudi Arabia to northern parts of Syria and Iraq (Glain 2005). This thesis will focus on the dialect that is spoken in the north side of Saudi Arabia in the province of Hail and the Northern Border region. The area of this dialect in Saudi Arabia is shaded in red in Figure 1.

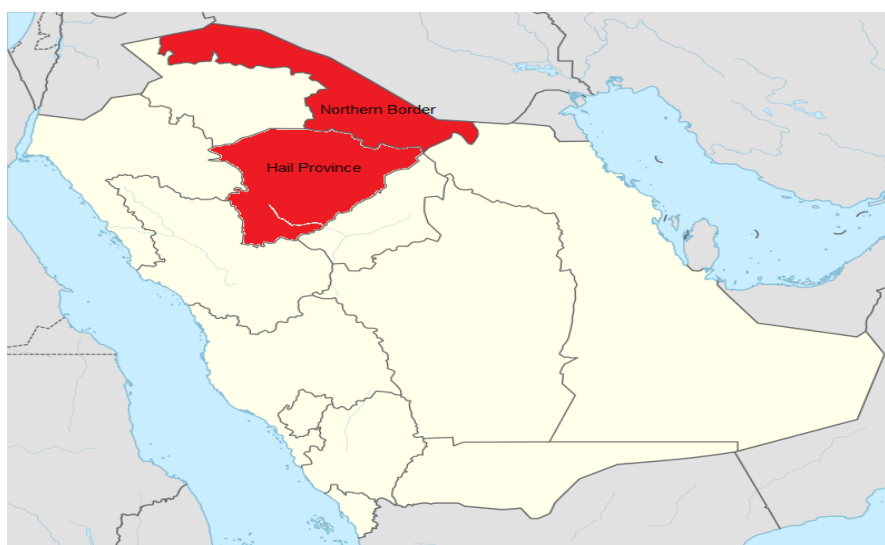


Figure 1. The location of Shammari Dialect (modified from Lewis 2013: 12)

## 1.2 Literature Review

There is a little published literature on wh-movement in SA specifically, but there has been some discussion of wh-movement in Najdi Arabic (NA) in general, which is the branch of Arabic that to which SA belongs. Albaty (2013) states that Najdi has three varieties of wh-questions: (1) the variety formed by fronting the wh-phrase to [SPEC-CP]; - (2) the wh-in-situ variety, and -(3) the variety of questions that show a strategy of resumption. Albaty (2013) focuses on the in-situ type and adopts an unselective binding analysis for wh-in-situ constructions in Najdi due to their insensitivity to islands. He claims that this form of questions violates both the complex noun phrase constraint and the coordinate structure constraint. The example (1) provides the in-situ form he discussed.

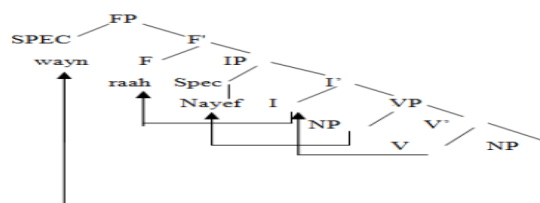
(1) ʕabdullah y-aʕrif ʔen aħmed raħ maʕ meen

Abdullah 3.MS-know that Ahmed went with who

“Abdullah knows that Ahmad went with who?” (Albaty 2013 :3)

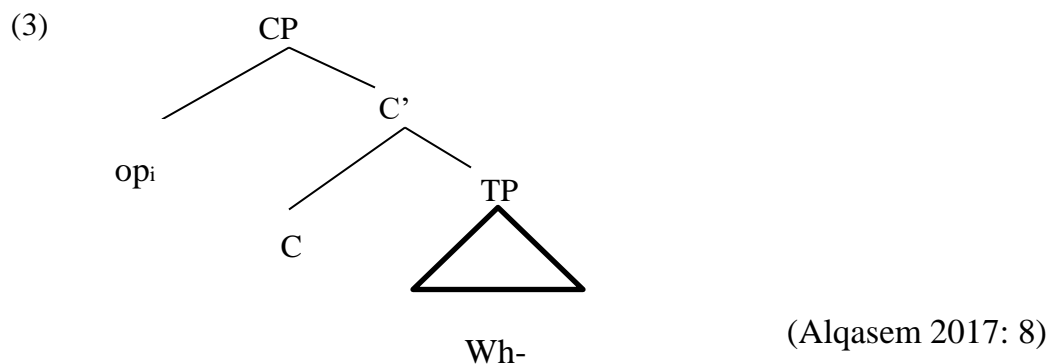
Additionally, Alqasem (2017) provides analyses for three types of interrogatives: first, wh-subject questions are formed by moving the wh-word to the Spec-CP (this movement is triggered by licensing the [+Q] feature in C. Second, wh-object questions are formed by movement to the left periphery as shown in diagram (2).

(2)



(Alqasem 2017: 6)

Third, he claims that wh-in-situ is derived by the presence of a null operator in Spec-CP, as represented in the following diagram (3).



Alotaibi (2012) adopts an approach that claims the SVO word order in Modern Standard Arabic is base-generated. He argues that the derivation of wh-questions with an SVO order is not allowed because subjects in SVO sentences are generated in a TopP position and this blocks the direct object from moving to the [SPEC-CP]. He also argues that V moves to T and the subject remains in-situ in [SPEC-vP] while the direct object moves to [SPEC-CP]. In this thesis, I will focus on the different analyses for wh-subjects that these two authors have proposed.

George (1980:154) states that the wh-subject remains in [SPEC-TP] due to the strong vacuous application prohibition, whereas non-wh-subjects are forced to be fronted to [SPEC-CP] through Wh-movement. All wh-movement takes place in the overt syntax with the exception of wh-subjects which stay in situ then move later at LF obeying the same conditions (such as island effects that constrain movement (Chomsky 1986: 49-54)). This is called the Vacuous Movement Hypothesis (VMH), which prohibits vacuous movement of the wh-subject. That is,

there is no operation in which wh-subjects undergo movement to [SPEC-CP].

Consider these examples below.

(4) [CP[TPWho cleaned the house]]?

(5) [CP[TPWho has cleaned the house]]?

(6) [CP Why<sub>j</sub> did<sub>i</sub> [TP he clean *t<sub>i</sub>* the house *t<sub>j</sub>*]]?

In (4) and (5), there is no overt movement which the wh-subject element undergoes nor is there an auxiliary displacement. While in (6), the non-wh-subject element shows an overt movement in which the wh-element moves to the [SPEC-CP] with an overt displacement of the auxiliary “did.”

As consequences of the VMH, the overt movement and the covert movement of wh-elements are assumed to be parallel processes in which both types of movements are governed by similar constraints.<sup>1</sup> This is potentially illustrated by the fact (contrary to Chomsky 1986) that embedded wh-subject questions induce a wh-island effect as in (7):

(7) \*What did you wonder [who bought *t*]?

Later, Chomsky (1995) proposed the operation Move, which selects a category and raises it to a domain of another category. This movement occurs in overt syntax due to the strong [wh] feature; covert movement on the other hand need not involve movement of a whole category, thus, abandoning the parallel approach. Additionally, the empirical data from wh in-situ languages such as Chinese and Iraqi Arabic suggest that the wh-phrases remain in-situ with no LF movement application (Simson: 2000: 66).

---

<sup>1</sup> These constraints include the wh-Island Condition Principle and ECP (Chomsky 1986).



Agbayani (2000, 2007) proposed a different analysis based on the strange behavior of the wh-subject questions formation in English; He proposes “the Two-Chain Theory”: that is, two separate operations involving 1) movement of features and 2) pied-piping of the category. He suggested that the unchecked formal feature F of a category;  $\alpha$  is extracted from its category for checking purposes and moves to the SPEC of a functional head to enter into a checking relation with the uninterpretable feature of the targeted head.<sup>2</sup> Subsequently, pied-piping of the category applies to the domain of the targeted head, creating multiple SPEC positions, pied-piping follows as a second procedure if the targeted head is phonologically occupied. In the Two-Chain Theory, feature movement satisfies the formal featural checking requirement, and subsequent category pied-piping satisfies the requirement for lexical integrity (a requirement for PF convergence). This claim functions not only as a mechanism of resolving the paradox of the VMH (i.e., the wh-subject appears not to move, but still induces an island effect), but also provides a driving force for overt movement in which the projection of SPEC position is created by the requirements for PF convergence, allowing the EPP to be abandoned for the independently motivated requirement of lexical integrity at the interface. Through the Two-Chain theory, the VMH is abandoned in favor of a hybrid VMH Move F + Category pied-piping analysis. Thus, the analysis for wh-subject question formation is as follows:

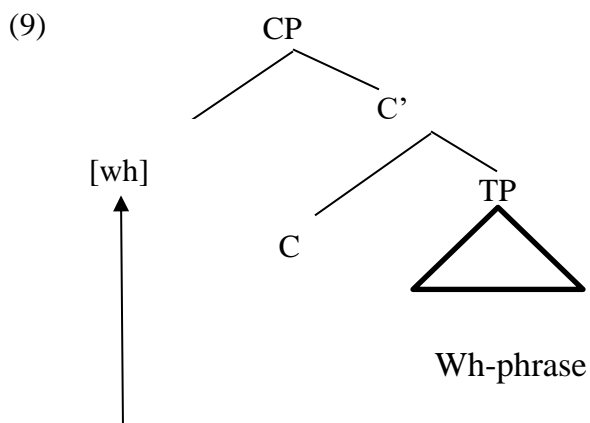
Move F applies; Pied-Pipe is blocked (Agbayani: 2007.82)

This means that the [wh] feature moves to [SPEC-CP] to enter into a checking relation with [ $uwh$ ] on C. If the category and its feature are adjacent, the

---

<sup>2</sup> Move F is the movement of the extracted formal features and Pied Pipe  $\alpha$  is the movement of the category

pied-pipe operation will be blocked. Based on this, the structure of wh-subject questions would be as in (9).



### 1.3 The Need for Direct Evidence Against the VMH

Despite the fact that there is indirect counterevidence to the VMH in English (see Agbayani 2007 for more details), on the surface there is no overt displacement or auxiliary inversion in wh-subject questions as in (10).

(10) [CP[TP Who has played the game]]?

The evidence for feature movement from the wh-subject and separate pied-piping in English is indirect, coming from the inducement of island effects. As to direct evidence, I present data from SA subject questions which put to rest the VMH (George 1980, Chomsky 1986) and unequivocally support the Two-Chain Theory (Agbayani 2000, 2007).

#### 1.3.1 Overt Movement of Wh-subject Questions

Like non-subject questions, wh-subjects in SA show an overt movement. The co-occurrence of both the wh-word and the complementizer in a wh-subject

question shows without a doubt that an overt movement of the wh-phrase occurs in subject wh-questions, contrary to the VMH. Consider the (11) and (12) examples below:

(11) ʔal-tʃart<sup>s</sup>-I                                      raḥ  
 DEF-policeman-3<sup>rd</sup>.SG.MS      left.PT.3<sup>rd</sup>.SG.MS  
 “the policeman left”

(12) min      illi      raḥ ?  
 who      that      left.PT.3<sup>rd</sup>.SG.MS  
 “who left?”

In (12), the wh-phrase undergoes movement to [SPEC-CP]; the subject is in a position which precedes the complementizer, which itself precedes the TP proper. The presence of the complementizer in (12) shows clearly that the wh-subject has moved to [SPEC-CP]. Given this data, there is no way that the VMH can be sustained for subject wh-question formation.

Hereafter, I present examples of the environments in which the co-occurrence of the wh-subject and the complementizer is allowed in different verb structures, starting with intransitive unergatives as well as transitive sentences with experiencer and agent subjects as in (13)-(17).

(13) min      illi      miʃa:  
 who      that      walk.PT.3<sup>rd</sup>.SG.MS  
 “who walked?”

(14) min      illi      taḥara:k-at?  
 who      that      move. PT.3<sup>rd</sup>.SG.FM  
 “who moved?”

- (15) min illi sabaḥ  
 who that swim. PT.3<sup>rd</sup>.SG.MS  
 “who swam?”
- (16) min illi ya-ḥab fa:tima:h  
 who that PRES-love.3<sup>rd</sup>.SG.MS Fatima  
 “who loves Fatima?”
- (17) min illi ḏʿarb ʔa-lwaləd  
 who that hit. PT.3<sup>rd</sup>.SG.MS DEF.boy.3<sup>rd</sup>.SG.MS  
 “who hit the boy”

Additional unaccusative intransitives are shown in (18)-(19). In these examples the subject of the intransitive has a patient theta-role.

- (18) min illi ma:t-u:  
 who that die-PT.3<sup>rd</sup>.PL.MS  
 “who died?”
- (19) min illi ʔaxtifa:-n  
 who that disappear.PT.3<sup>rd</sup>.PL.FM  
 “who disappeared?”

In (20) we can see a wh-subject in a ditransitive verb construction:

- (20) min illi ʔaʕtʿa: ʔal-ʕSi:r l-alʒadah  
 who that give.PT.3<sup>rd</sup>.SG.MS DEF.juice.SG.MS TO-grandma  
 “who gave the juice to the grandma?”

The data presented in (13)-(20) above provide evidence that contradict the VMH; the complementizer *illi* follows the wh-subject. However, a hybrid analysis will permit it under the pied-pipe application; the category moves when the

functional head is phonologically filled to maintain the adjacency with its formal feature. In this case, the category *min* “who” moves to [SPEC-CP] due to the insertion of the complementizer *illi* “that”. Thus, it seems that the wh-subject undergoes overt syntactic movement (full movement of both the F and category  $\alpha$ ). But this raises a crucial question: “what licenses the insertion of the complementizer which triggers the Pied-piping operation? And is there additional direct evidence for a Two-Chain movement approach as opposed to a full “Move  $\alpha$ ” analysis? Chapter two of this thesis will explore this issue and provide evidence supporting the Two-Chain analysis.

Also, the absence of the complementizer in subject wh-questions yields ungrammaticality:

- (21) \**min mifa:*  
 who walk.PT.3<sup>rd</sup>.SG.MS  
 “who walked?”
- (22) \**min taħara:k-at?*  
 who move.PT.3<sup>rd</sup>.SG.FM  
 “who moved?”
- (23) \**min sabaħ*  
 who swim.PT.3<sup>rd</sup>.SG.MS  
 “who swam?”

Thus, regardless of the transitivity of the predicate or the theta-role of the subject, a complementizer appears within a wh-subject question, showing that the subject has moved contrary to the prediction of the VMH. This is in contrast to non-subject wh-questions, in which the complementizer obligatorily does not appear. See these examples below:

- (24) meta: raḥ                      xalid      li-lmadras-i  
 when left.PT.3<sup>rd</sup>.SG.MS Khalid to-DEF-school-3<sup>rd</sup>.SG.MS  
 “when did Khalid go to the school?”
- (25) \*meta: illi raḥ                      xalid      li-lmadras-i  
 when that left.PT.3<sup>rd</sup>.SG.MS Khalid to-DEF-school-3<sup>rd</sup>.SG.FM  
 “when did Khalid go to the school?”
- (26) le:h lʔab                      ʔal-razil              ko:rai  
 why play.PT.3<sup>rd</sup>.SG.MS DEF-man-3<sup>rd</sup>.SG.FM football  
 “why did the man play football?”
- (27) \*le:h illi lʔab                      ʔal-razil              ko:rai  
 why that play.PT.3<sup>rd</sup>.SG.MS DEF-man-3<sup>rd</sup>.SG.FM football  
 “why did the man play football?”

In (25) and (27), the appearance of the complementizer *illi* “that” makes the string ungrammatical. Also, the co-occurrence of the wh-word and the complementizer in direct object questions makes the string ungrammatical as well as in (29) and (31).

- (28) wif ʔi-fta:r-at                      ʔal-bent  
 what PT-buy-3<sup>rd</sup>.SG.FM DEF-girl.3<sup>rd</sup>.SG.FM  
 “what did the girl buy?”
- (29) \*wif illi ʔi-fta:r-at                      ʔal-bent  
 what that PT-buy-3<sup>rd</sup>.SG.FM DEF-girl.3<sup>rd</sup>.SG.FM  
 “what did the girl buy?”
- (30) wif gatʕaʕ                      ʔal-tʕola:b  
 what PT-cut-3<sup>rd</sup>.SG.MS DEF-student.3<sup>rd</sup>.SG.MS  
 “what did the student cut?”

- (31) \*wiʃ illi gatʕaʃ ʔal-tʕola:b  
 what that PT-cut-3<sup>rd</sup>.SG.MS DEF-student.3<sup>rd</sup>. SG.MS  
 “what did the student cut?”

This is not really accurate. In fact, the co-occurrence of the wh-words and the complementizer in the direct object changes the interpretation. In (29), the co-occurrence makes the driven meaning as “something bought the girl and you asking about the identity of that thing”; i.e. it becomes “what bought the girl? Also, in (31), the meaning becomes “what cut the girl”.

### 1.3.2 Sluicing

Sluicing is problematic for the VMH even in English as reported by (Agbayani 2007). But not so for the hybrid Two-Chain Theory since it predicts that the presence of the wh-subject in the sluicing operation is the result of pied-piping the category to be adjacent to its feature [wh], as in (32).

- (32) I heard someone will come today. Tell me [<sub>CP</sub> who<sub>i</sub> [<sub>CP</sub> [Fwh] [<sub>C'</sub> c [<sub>TP</sub> t<sub>i</sub> will come]]]].

Now consider these examples.

- (33) simʕi-t ʔin ʔaħadhu:m ʔi-ʃtar-a: manzil.  
 I-heard that someone bought house.  
 ʕalimn-I min illi ʔi-ʃtar-a: manzil  
 Tell-me who that bought house  
 “I heard someone bought a house. Tell me who bought a house”

(34) simʕi-t ʔin ʔaħadhu:m ʔi-ʃtar-a: manzil.

I-heard that someone bought house.

ʕalimn-I min-hu:

Tell-me who-he

“I heard someone bought a house. Tell me who”

(35) \*simʕi-t ʔin ʔaħadhu:m ʔi-ʃtar-a: manzil.

I-heard that someone bought house.

ʕalimn-i min illi

Tell-me who that

“I heard someone bought a house. Tell me who”

In (34), not only the remnant of the wh-subject is appearing, but also it bears a pronominal clitic as well. The attached clitic shows the *phi*-features, or number, person, and gender associated with the subject of the sluiced clause. This adds several more challenging questions to both models. If the sluicing only deletes the TP, why does the complementizer delete along with it? This then leads to two questions: what causes the insertion of the pronominal clitic, and what does this have to do with Move F in the first place? (Especially since the appearance of the clitic contrasts with the assumption that a lexical item must retain all of its features from the lexicon at the interface via adjacency with the category (Agbayani 2007:80). Also, the clitic appears only with wh-subject questions, not with non-subject questions. Consider examples (35-36).



(35) simʕi-t ʔin ʔaħmid ʔi-ʃtar-a: manzil fi: Jeddah.

I-heard that Ahmed bought house in Jeddah.

ʕalimn-I we:n ʔi-ʃtar-a: ʔaħmid manzil

Tell-me where bought Ahmed house

“I heard someone bought a house. Tell me where Ahmed bought a house”

(36) simʕi-t ʔin ʔaħmid ʔi-ʃtar-a: manzil fi:

I-heard that Ahmed bought house in

Jeddah. ʕalimn-i we:n

Jeddah. Tell-me where

“I heard Ahmed bought a house in Jeddah. Tell me where”

In (36), the insertion of clitic is not required. In this case, the entire TP is deleted and what is left is the [SPEC-CP]. This indicates that the clitic is associated with the subject wh-elements only. In the following chapters, I will show that the clitic is also specific to external arguments of the clauses.

To sum up, the presence of the complementizer shows that the wh-subject must undergo overt syntactic movement, and this contradicts the main claim of the VMH. Also, even though apparent full movement of the wh-subject is permitted in the hybrid Two-Chain analysis (by separate movement of the feature and the category), it predicts that there are instances in which the category remains in-situ. This happens in English but is never the case in SA. The following chapters will focus on the derivation of wh-subjects adopting the Move F + Category pied-piping approach.

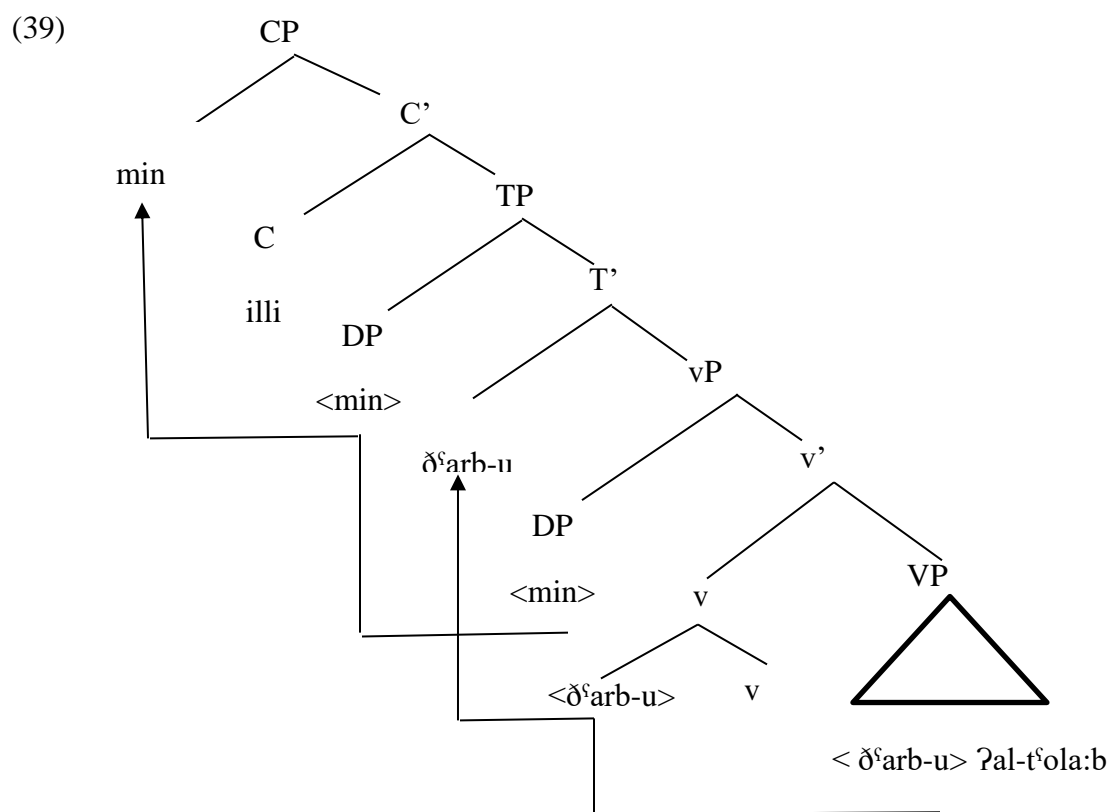
## CHAPTER 2: THE WH-SUBJECT IN SA

In this chapter, I examine the wh-subject movement in SA as a way to settle the controversial behavior of wh-subjects. As seen in chapter one, the empirical data from SA showed that there is an overt movement of the wh-subject. SA has a unique way of forming wh-subject questions and it shows a clear displacement of the subject; i.e. SA forms the interrogative by series of movements and allows a co-occurrence of a complementizer which indicates that the wh-subject is in [Spec-CP]. Yet, the movement of the wh-subject is not a unitary movement but rather is a series of movements in sequentially ordered steps of feature movement followed by category movement. See the example below:

- (37) [CP *mini illi* [TP *t<sub>i</sub> ð<sup>s</sup>arb-u* *ʔal-t<sup>o</sup>la:b*]]?  
who that hit.PT-3<sup>rd</sup>.PL.MS DEF-student.3<sup>rd</sup>.PL.MS  
“who hit the student?”
- (38) [CP *mini illi* [TP *t<sub>i</sub> kitab* *ʔal-taqri:r*]]?  
who that write.PT.3<sup>rd</sup>.SG.MS DEF.report.3<sup>rd</sup>.SG.MS  
“who wrote the report?”

In examples (37-38), the insertion of the complementizer shows that the wh-element does move to the [SPEC-CP]. The complementizer *illi* (that) in (37) follows the wh-word *min* (who), which shows that the position of the wh-word must be outside the TP and in the position of Spec-CP. In the course of the derivation, the verb and the internal argument form the VP then the VP and the external argument merge with *v* to form the vP. The vP and T merge to create the TP in which the EPP feature triggers the subject movement to [SPEC-TP]. Then,

this is followed by another merge of C [Q, *uwh*\*] to value [*u*clause-type]. The [wh] feature of the subject DP moves to the [SPEC-CP] to check the [*uwh*] of C, which will then force the wh--category that occupies the Spec-TP to move to [SPEC-CP] in order for [wh] and its category to be adjacent. The tree diagram of (39) below illustrates the movement.

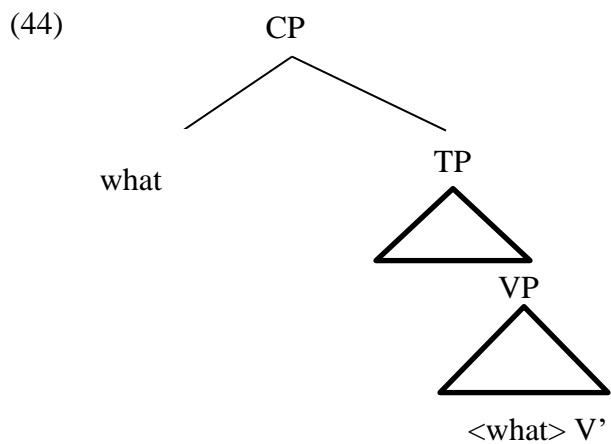


The questions to be asked here are: 1) “what licenses the co-occurrence of the complementizer and the wh-words in wh-subject question formation”, and 2) “-is this co-occurrence permitted in other wh-question formations in SA?” In light of these questions note the examples below.

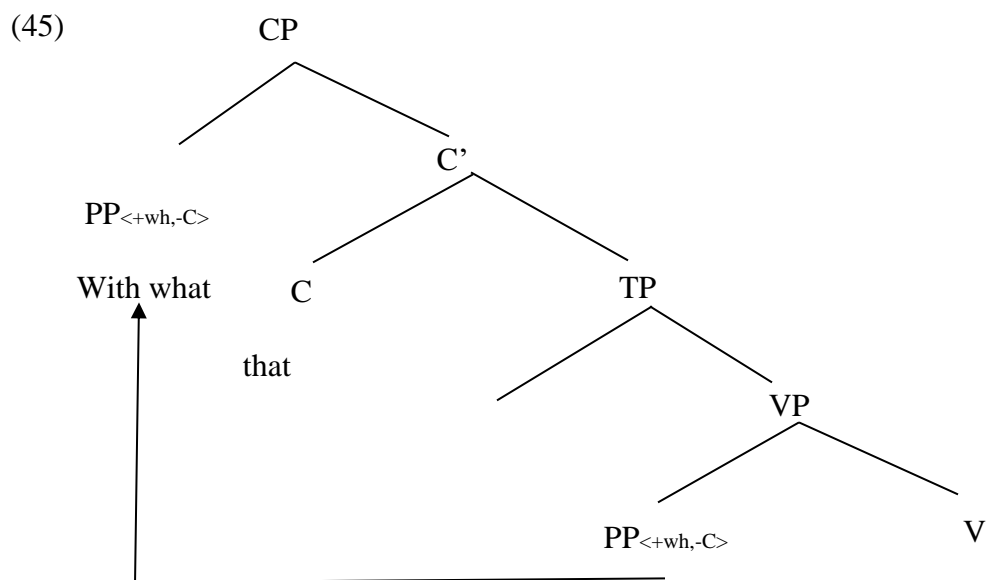
- (40) wif   ʔi-ʃta:r-at                   ʔal-bent  
 what PT-buy-3<sup>rd</sup>.SG.FM   DEF-girl.3<sup>rd</sup>.SG.FM  
 “what does the girl buy?”
- (41) ʃilu:n kitab                           xa:lid ʔal-taqri:r  
 how write.PT.3<sup>rd</sup>.SG.MS   KhalidDEF.report.3<sup>rd</sup>.SG.MS  
 “how did he write the report?”
- (42) le:h   rah -t                           int   badri:  
 why leave.PT-2<sup>nd</sup>.SG.MS   you   early  
 “why did you leave early?”
- (43) meta: ya-lʔab                       ʔal-firi:g                       ʔal-mu:bar-ai  
 when will-play-3<sup>rd</sup>.SG.MS   DEF-team.3<sup>rd</sup>.SG.MS   DEF.game-3<sup>rd</sup>.SG.FM  
 “when will they play the match?”

It seems that the co-occurrence of the complementizer and the wh-word is strictly required in wh-subject questions and forbidden in non-subject questions. The co-occurrence of the complementizer with the wh-words is a well-known phenomenon in languages such as Bavarian, Alemannic, and Dutch, and taking into account the facts from these languages will provide a better understanding of the obligatory co-occurrence of the wh-subject and complementizer in SA.

Bayer and Brandner (2008: 89-90) suggested that the wh-words carry a latent C feature represented as <aC>, which in certain conditions may be activated in projecting CP. According to them, the wh-word which contains both [wh] and [C] features merges externally with the verb projecting VP, then the wh-word moves to be a sister to TP; i.e. it re-merges internally with TP. This condition will activate the <+C> feature and the wh-words projects CP as in (44).



However, if the wh-word first merges with NP or PP, it will not move to be a sister to TP. Therefore, the <-C> is not activated and the whole phrase moves to [SPEC-CP] allowing the insertion of the complementizer as in (45).



This model would be preferable if such a structure holds in SA. Note the examples below.

(46) bu-wiʃ            ʔa-lwaləd            ʔarb  
 with-what    DEF-boy.3<sup>rd</sup>.SG.MS    hit.PT.3<sup>rd</sup>.SG.MS  
 “with what did the boy hit?”

(47) \* bu-wiʃ        illi    ʔa-lwaləd            ʔarb  
 with-what    that    DEF-boy.3<sup>rd</sup>.SG.MS    hit. PT.3<sup>rd</sup>.SG.MS  
 “with what did the boy hit?”

The insertion of the complementizer *illi* in (47) is not allowed, which indicates that the insertion of the complementizer is not due to the external merge as the above approach predicts.

Based on the empirical data (13-20), it seems that co-occurrence is associated with the structural subject, not with theta role assignment. So, it is important to examine the nature of the relationship between the subject and verb in common word order in SA. Alshammary (2016: 85) observed that full agreement obtains between the verb and the subject in both VSO and SVO word orders in the Arabic dialects. SA has full agreement between the subject and verb including gender, number, and person. See the examples below.

(48) ʔa-lwayəd            ʔarb            ʔal-bent  
 DEF-boy.3<sup>rd</sup>.SG.MS    hit.PT.3<sup>rd</sup>.SG.MS    DEF-girl.3<sup>rd</sup>.SG.FM  
 “the boy hit the girl”

(49) ʔa-lwayd-a:n            ʔarb-u            ʔal-bent  
 DEF-boy-3<sup>rd</sup>.PL.MS    hit.PT-3<sup>rd</sup>.PL.MS    DEF-girl.3<sup>rd</sup>.SG.FM  
 “the boys hit the girl”

(50) ʔa-lbent            ʔarb-at            ʔal-wayəd  
 DEF-girl.3<sup>rd</sup>.SG.FM    hit.PT-3<sup>rd</sup>.SG.FM    DEF-boy.3<sup>rd</sup>.SG.MS

“the girl hit the boy”

- (51) ana: gil-t                   ʔal-gis<sup>s</sup>i:da-h  
 I       said-1<sup>st</sup>.SG   DEF-poem-3<sup>rd</sup>.SG.FM

“I said the poem”

In all these examples, the subject-verb agreement appears as suffixes attached to both the subject and the verb. In (48) and (49), subjects vary on the number marker; the plural subject marked by the suffix *a:n* which agrees with the *-u* on the verb. In (50), the verb is marked by the *-at* to agree with the third singular feminine subject *ʔa-lbent*. Now, let’s form these declarative statements in (48) and (49) into wh-subject questions.

- (52) min illi   ð<sup>s</sup>arb                   ʔal-bent  
 who that hit.PT.3<sup>rd</sup>.SG.MS   DEF-girl.3<sup>rd</sup>.SG.FM

“who hit the girl?”

- (53) min illi   ð<sup>s</sup>arb-u               ʔal-bent  
 who that hit.PT.3<sup>rd</sup>.PL.MS   DEF-girl.3<sup>rd</sup>.SG.FM

“who hit the girl”

- (54) \*min   ð<sup>s</sup>arb-u               ʔal-bent  
 who hit.PT.3<sup>rd</sup>.PL.MS   DEF-girl.3<sup>rd</sup>.SG.FM

“who hit the girl?”

Note, in (53) the plural marker appears on the verb and is semantically interpreted as a plural subject even when there are no observed changes occurring in the derivation of the wh-word or the complementizer; it is understood that the subject of this structure is plural. However, in (54), with the absence of the complementizer, it seems that there is a mismatch in the agreement between the

subject and the verb, thus the sentence is considered ungrammatical. In addition, example (55) indicates that the gender marker is somehow coded in the complementizer, conveying the interpretation of female singular subject, whereas in (56) the absence of the complementizer results in ungrammaticality. These examples show that the  $\phi$ -features are coded in the complementizer, or at least the complementizer contains abstract  $\phi$ -features that are mediating the agreement.

(55) min illi ḏ<sup>s</sup>arb-at                   ʔal-wayad  
 who that hit.PT.3<sup>rd</sup>.SG.FM       DEF-boy.3<sup>rd</sup>.SG.MS  
 “who hit the boy?”

(56) \*min ḏ<sup>s</sup>arb-at                   ʔal-wayad  
 who hit.PT.3<sup>rd</sup>.SG.FM       DEF-boy.3<sup>rd</sup>.SG.MS  
 “who hit the boy?”

Thus, I argue that the  $\phi$ -features of the structural subject are realized as a lexical item to mediate the subject-verb agreement in SA in three ways: (1) as affixes attached to the subject in declarative constructions, (2) as a complementizer in *wh*-subject formation, and (3) as pronominal clitics attached to the complementizer in extracted subject of the embedded infinitival clauses or attached to the *wh*-word in sluicing. Associating the inserted lexical item with the  $\phi$ -features of the structural subject can also be seen when extracting the subject of the embedded clause to the matrix clause. Inserting a weak pronominal clitic to the complementizer allows the movement of the embedded clause’s subject to the left periphery (Lewis 2013). In (58), the pronominal clitic *hum* is attached to the complementizer when fronting the subject of the embedded clause *ʔal-t<sup>u</sup>la:b* “the



students” to the edge of the matrix clause. Based on other observations in SA, the insertion of the pronominal clitic is a result of the movement, not a factor initiating it. The clitic *hum* is a referential mediator that links the long-distance extracted subject and the verb of the embedded clause. Once the subject moves to the left periphery, the  $\phi$ -features are realized as a pronominal in the subject position [SPEC-TP].

(57)  $\text{ʔa-}\delta\text{in}$   $\text{ʔin}$   $\text{ʔal-t}^{\text{u}}\text{la:b}$   $\text{ħal-u:}$   $\text{ʔal-wa:zab}$   
 I- think that students solve -PL.MS DEF-homework  
 “I think that the students did the homework”

(58)  $\text{ʔal-t}^{\text{u}}\text{la:b}$   $\text{ʔa-}\delta\text{in}$   $\text{ʔin-hum}$   $\text{ħal-u:}$   $\text{ʔal-wa:zab}$   
 DEF- students I- think that-3<sup>rd</sup>.PL.MS solve -PL DEF-homework  
 “I think that the students did the homework”

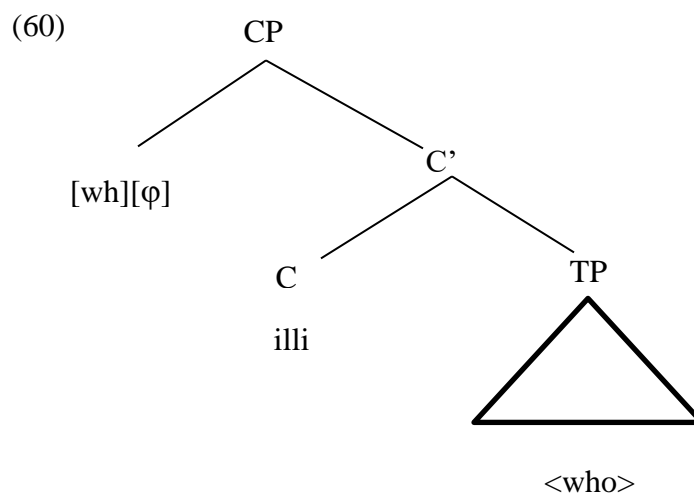
(59)\* $\text{ʔal-t}^{\text{u}}\text{la:b}$   $\text{ʔa-}\delta\text{in}$   $\text{ʔin}$   $\text{ħal-u:}$   $\text{ʔal-wa:zab}$   
 DEF- student.3<sup>rd</sup>.PL.MS I- think that solve -PL DEF-homework  
 “I think that the students did the homework”

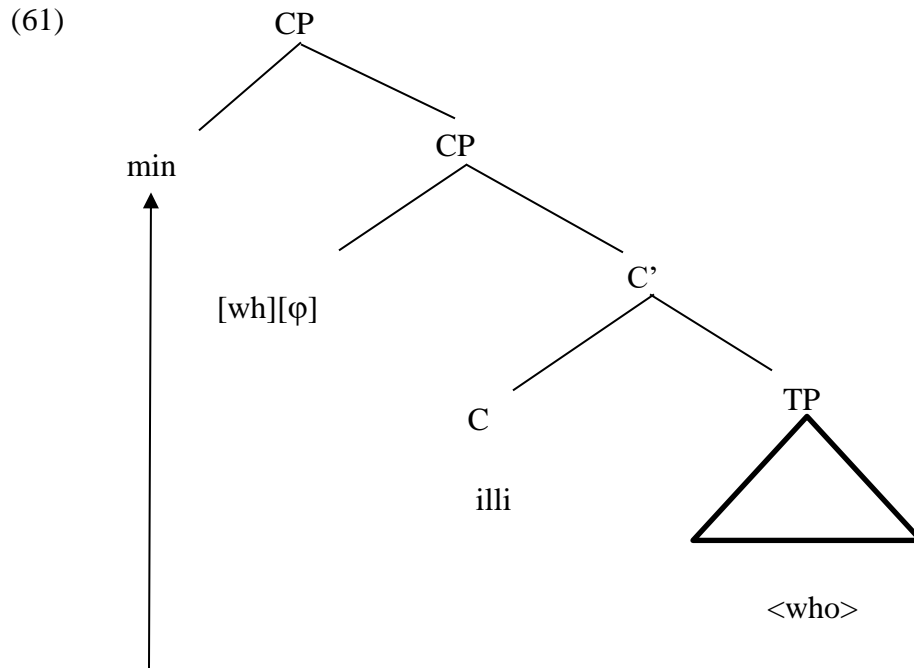
Therefore, the *wh*-subject question in SA is formed by extracting the [wh] feature from its lexical item,<sup>3</sup> in that case *who*, moving to [SPEC-CP] to check [uwh] in C carrying along the  $\phi$ -features. Chomsky 1995, stated that if a feature moves for checking, other features are “free riders” moving along in the formation of the feature chain CHFF=(FF,tFF). Once the [wh] feature lands in Spec-CP, the

---

<sup>3</sup> As following procedure of merging the functional head H, the uninterpretable features on the functional head H motivate the matching unchecked feature of the lexical category  $\alpha$  to move out of its category to enter checking operation (Agbayani 2007. 80).

$\phi$ -features are realized as the complementizer *illi* (that) in C to mediate the obligatory subject-verb agreement. The overt phonological representation of the complementizer forces the lexical item “who” to move to the [SPEC-CP] to be adjacent with the [wh] feature. The application of pied-pipe is to hold the adjacency of the category and its feature, in this case the [wh] feature of the wh-subject (Agbayani 2007). The  $\phi$ -features of the wh-phrase are carried along with the [wh] feature and mediate the verb-subject agreement by inserting a complementizer which will trigger subsequent category pied piping to [SPEC-CP]. Via the realization of  $\phi$ -features, SA forms wh-subject questions through a full movement of both operations: Move F and Category pied piping. The diagrams (60-61) below illustrate the movement.





Now consider example (62-64) of the extracting the object of the embedded clause to the matrix clause.

(62) ʔa-ðin ʔin ʔal-tʰula:b ʔal-u: ʔal-wa:ʒab  
 I- think that students solve -PL.MS DEF-homework  
 “I think that the students did the homework”

(63) ʔal-wa:ʒab ʔa-ðin ʔin ʔal-tʰula:b ʔal-u:  
 DEF-homework I- think that students solve -PL.MS  
 “I think that the students did the homework”

(64) \*ʔal-wa:ʒab ʔa-ðin ʔin-oh ʔal-tʰula:b ʔal-u:  
 DEF-homework I- think that-3<sup>rd</sup>.SG.MS students solve -PL.MS  
 “I think that the students did the homework”

In (63), there is no clitic attached to the complementizer when extracting the object of the embedded clause to the matrix clause. In fact, the insertion of the clitic makes the string ungrammatical as demonstrated in (64).

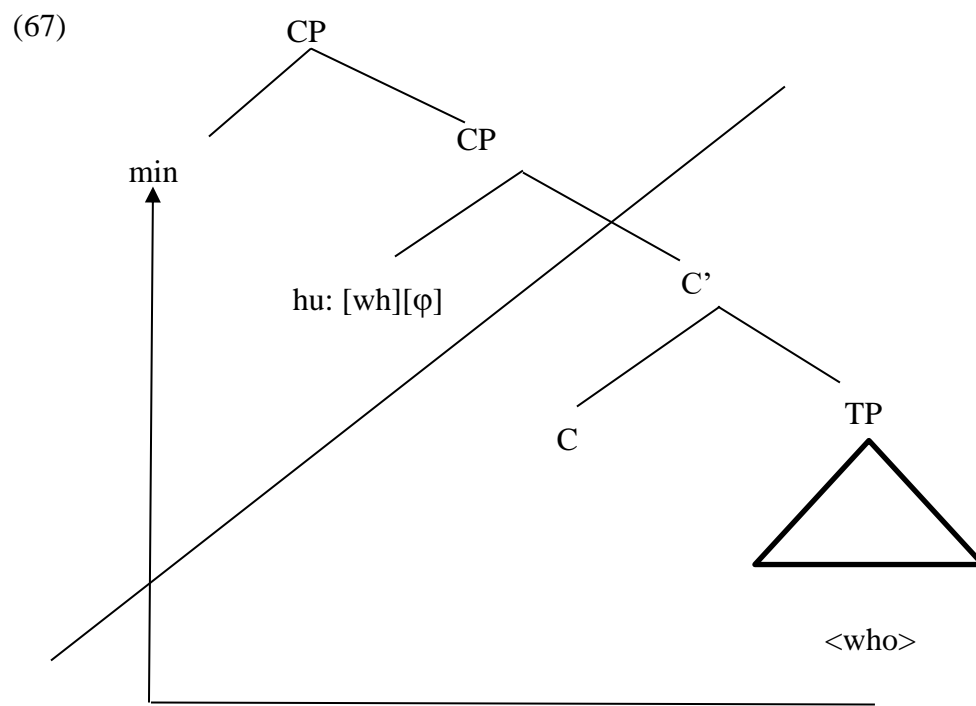
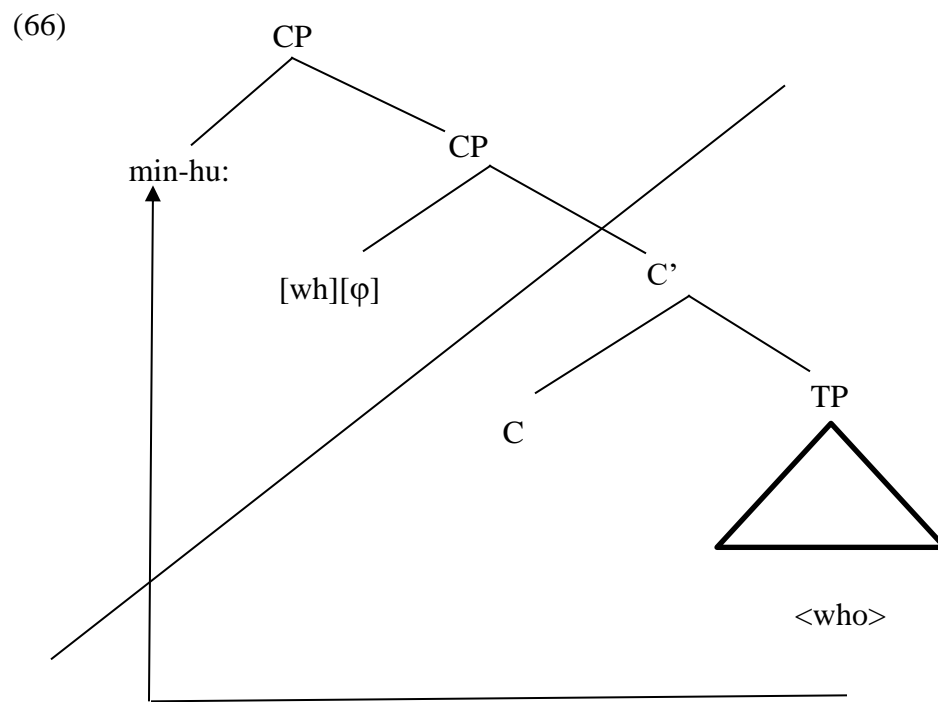
### 2.1. Sluicing with F Move

By proposing that the features are realized phonologically as lexical items, the ellipsis of the complementizer is permitted since the insertion of it serves to mediate the agreement. Yet, deleting the function head C which bears the lexical realization of the  $\phi$ -features will cause the derivation to crash at PF due to the full interpretation principle (Chomsky 1993) which forces  $\phi$ -features to be realized as a pronominal clitic either attached to the wh-word as in (66) the tree of (65) or on its inherited SPEC domain as in (67).

(65)  $sim\zeta i-t \quad \text{?in} \quad \text{?aħadhu:m} \quad \text{?i-ʃtar-a:} \quad \text{manzil.}$   
 I-hear that someone PT-buy-3<sup>rd</sup>.SG.MS house.  
 $\zeta alimn-i \quad \text{min-hu:}$   
 Tell-me who-he  
 “I heard someone bought a house. Tell me who”

The insertion of the pronominal clitic shows that sluicing is done in the overt syntax. Additionally, the realization of the  $\phi$ -features as a clitic is due to the deletion of the complementizer, indicating that sluicing is a process of ellipsis, not reconstruction as proposed by Merchant (2001). Therefore, the general property of sluicing is as follows:

- a. Sluicing is a syntactic operation.
- b. Sluicing is a deletion, not a reconstruction process.



### CHAPTER 3: MOVE F EVIDENCE

In this chapter I review some of the evidence for the existence of feature movement, which was introduced in the chapter two, that would solve some of the problems for the traditional VMH and would furnish a new way of implementing the operation Move. Chomsky (1995) states that the essence of the operation Move is to satisfy the morpho-syntactic requirement of feature checking. In that sense, the question this raises is whether we have Move  $\alpha$  (movement of the whole category for checking) or Move F (feature movement). For the sake of this thesis, I limit the scope to account for the operation Move in wh-subject movement.

Chomsky (1995) states that only features move for the purpose of checking; that is the fulfillment of checking can be optimally achieved by just attracted the relevant feature for checking the feature of the target. He argues that Move F functions by ordered steps. The steps as Chomsky proposed are:

- a. F is an unchecked feature.
- b. F enters into a checking relation with a sublabel of K as a result of the operation.<sup>4</sup>
- c. FF [F] raises along with F.
- d. A category  $\alpha$  containing F moves along with F only as required for convergence.
- e. Covert operations are pure feature raising. (Chomsky 1995:269-270)

---

<sup>4</sup> K is the targeted head

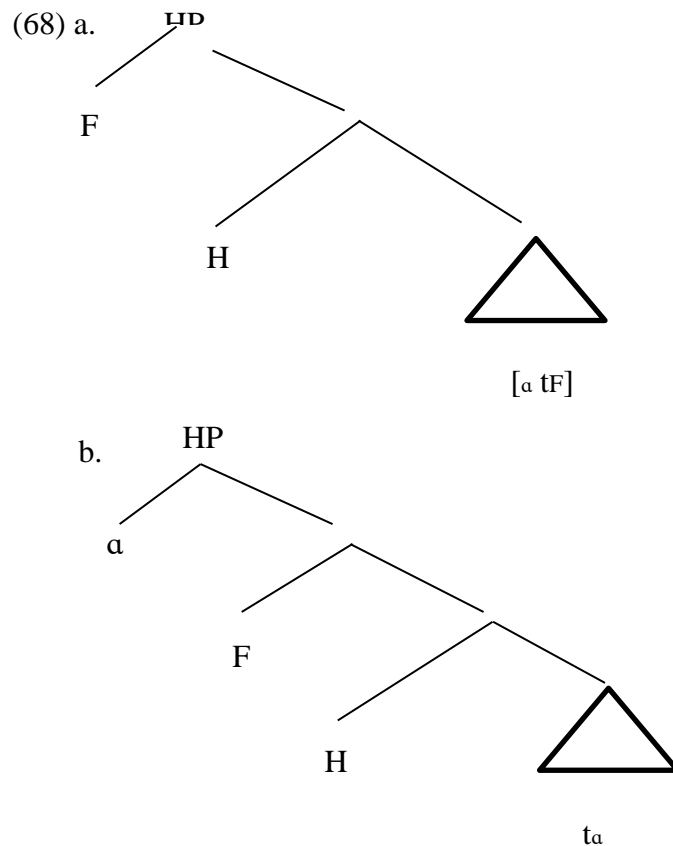
However, Chomsky (2000) abandoned that approach arguing that Move F does not hold due the absence of feature chains. The old approach was replaced by the new notion of “Agree” which consists of two processes: features checking via a Probe-Goal relationship between a c-commanding head and a c-commanded lexical category, and movement to the SPEC of the c-commanding head.

On the other hand, as a follow-up work resolving the paradox of the VMH, Agbayani (2007) argues that the wh-subject movement in English consists of two separate procedures as follows:

- (1) Move F satisfies the feature-checking of the uninterpretable feature located in the head H.
- (2) The XP category raises to the domain of extracted F through Pied-pipe.

He argues that the [wh] feature moves to C to be checked yet the economy principle forces the subject to remain in-situ if there is no phonological feature intervening. Additionally, he assumed that the pied-piping of the lexical item will create multiple SPEC positions so when the category moves it will occupy the SPEC of the functional head. The proposed structure by Agbayani is in (68).

It is logical to assume that the Move F consists of two separate processes; first the feature is extracted out of the category then it moves to the SPEC of the targeted site (functional head) for checking; second the category pied-pipes to a SPEC of its own as a following process if there is a necessity of adjacency. If there is a barrier forbidding the adjacency between the category and its extracted feature, then pied piping of the category is forced to apply. Based on the empirical evidence of SA, Move F may also force the insertion of a lexical item when needed at the targeted site. This insertion appears in two places: first the insertion



(Agbayani 2007: 82)

of the complementizer *illi* when forming the *wh*-subject question as seen in chapter two, and second in the insertion of the pronominal clitic hosted by the complementizer *in* (that) in embedded clauses and by the *wh*-element under sluicing. In both cases, the insertion of these items is made necessary by the need to mediate  $\phi$ -feature agreement with the verb.

Lewis (2013: 42), stated that the complementizer *-in* (that) agrees with the *pro* subject in embedded clauses. He stated that the complementizer *-in* (that) carries the number, the gender, and the person features ( $\phi$ -features) which agree



with the non-overt subject. As in the examples below, the complementizer *in-* agrees with the verb by bearing suffixes such as *-ah* as in (69) to hold the agreement with the verb *ḏʿrub-at* which bears the suffix *-at* “FM.SG.3<sup>rd</sup>”.

(69) simʕi-t    ʔin-ah            ḏʿrub-at            ʔal-walad  
 I-hear    that-SG.FM.3<sup>rd</sup>    hit-FM.SG.3<sup>rd</sup>    DEF-boy.3<sup>rd</sup>.SG.MS  
 “(I) heard that (she) hit the boy”

(70) simʕi-t    ʔin-hum            ḏʿrub-un            ʔal-walad  
 I-hear    that-3<sup>rd</sup>.PL.MS    hit-3<sup>rd</sup>.PL.MS    DEF-boy.3<sup>rd</sup>.SG.MS  
 “I heard that they hit the boy”

(71) ʔaḏʿun    ʔin-han            raḥ-un            men ʔams  
 I.think    that-3<sup>rd</sup>.PL.FM    go.PT-3<sup>rd</sup>.PL.FM    from yesterday  
 “I think that they went since yesterday”

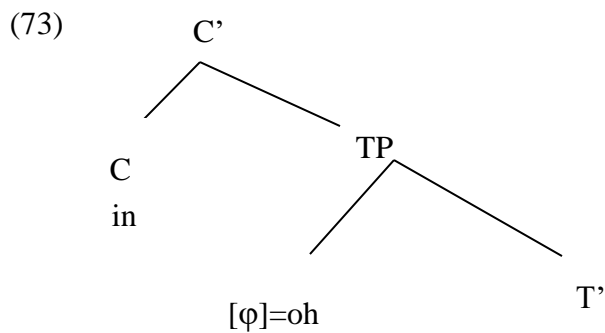
(72) \*hi: ga:l-t            ʔin ra:ḥ            l-il-mu:statʃfa:  
 She say.PT.FM.SG.3<sup>rd</sup>    that go.PT.3<sup>rd</sup>.SG.MS    to-DEF-hospital  
 “she said that he went to the hospital”

In (71), the *-han* is attached to the complementizer *-in* (that), which agrees with the verb in number, gender, and person. In (72), when the complementizer *-in* (that) is followed by the verb with no complementizer agreement on the C, the example is ungrammatical. Table 1 illustrates the affixes that attach to the complementizer satisfying the verb-subject agreement.

Alternatively, I propose that the pronominal clitic is the actual subject, and that there is not a *pro* subject, contrary to the proposal of Lewis (2013). Instead, the  $\varphi$ -features are realized as a pronominal in the subject position [SPEC-TP]. Then, in the phonological component, the pronominal cliticizes to the complementizer.

TABLE 1. Agreement Affixes on Complementizer

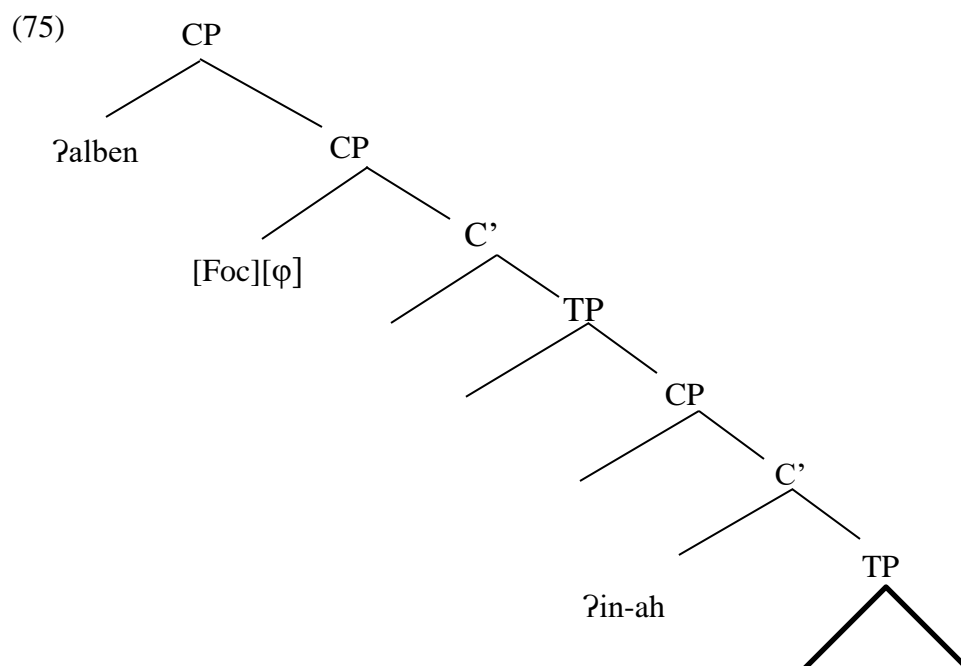
Gloss	Affixes
3 <sup>rd</sup> .SG.MS	-oh
3 <sup>rd</sup> .SG.FM	-ah
3 <sup>rd</sup> .PL.MS	-hum
3 <sup>rd</sup> .PL.FM	-han
1 <sup>st</sup> .SG	-i:
1 <sup>st</sup> .PL	-na:
2 <sup>nd</sup> .SG.MS	-k
2 <sup>nd</sup> .SG.FM	-its
2 <sup>nd</sup> .PL.MS	-kum
2 <sup>nd</sup> .PL.FM	-kan



Furthermore, as mentioned in the previous chapter, long distance fronting of the subject requires an insertion of a clitic attached to the embedded complementizer. First, the [Foc] feature of the subject moves to the [SPEC-CP] of the embedded clause along with  $\phi$ -features, then proceeds to the [SPEC-CP] of the main clause successive-cyclically. Note that this is contrary to the assumption in Chomsky (1995) where FF is assumed to not move successive-cyclically. The

feature movement triggers the movement of the category to be adjacent with its features. Then the  $\phi$ -features are realized as a pronominal and cliticize to the complementizer in C (the closest domain to the verb). This operation is illustrated in (75) of (74).

- (74)  $\text{ʔal-bent}$   $\text{ʔa-ðin}$   $\text{ʔin-ah}$   $\text{ʃa:fat}$   $\text{ʔal-film}$   
 DEF- girl I-think that-3<sup>rd</sup>.SG.FM see -SG.FM DEF-movie  
 “I think that the girl saw the movie”



## CHAPTER 4: CONCLUSION

In the first chapter, I introduced the VMH and hybrid approach and provided counterevidence to the VMH that shows the overt movement of the wh-subject in SA. Also, I presented sluicing data in which a pronominal clitic shows up and is attached to the remnant subject. In chapter two, I showed that the co-occurrence of the wh-subject and the complementizer *illi* is associated with the structural subject not with the theta role assigned by the verb. I also, showed that, - extracting the subject of the embedded clause to the matrix clause seems to support the insertion of the lexical item associated with the  $\phi$ -features of the structural subject. I then showed that the  $\phi$ -features of the structural subject are realized as a lexical item to hold the subject-verb agreement in SA in three ways: (1) as affixes attached to the subject in declarative constructions, (2) as a complementizer in wh-subject questions, and (3) as a pronominal clitic attached to the complementizer of embedded clauses with extracted subject or attached to the wh-word in sluicing.  $\phi$ -features are carried along with the [wh] feature, and mediate the verb-subject agreement; the agreement features are made visible by inserting a complementizer which will trigger wh-category pied-piping to Spec-CP. Lastly, I presented a solution to the sluicing issue arguing that due to the deletion of the complementizer the  $\phi$ -features are realized as a pronominal clitic.

In chapter 3, I provided new evidence supporting the Move F approach. The insertion of the pronominal clitic in embedded clauses shows that the  $\phi$ -features of the extracted subject move and are realized as a clitic attached to the complementizer. Also, I showed a similar realization of the  $\phi$ -features when the subject of the embedded clause moves long distance.

Taken as a whole, the evidence from SA shows that the VMH cannot be correct, whereas a Move F approach accounts for the data. This is an important contribution to the debate on the nature of wh-subjects.

## WORKS CITED

- Albaty, Yasser. 2018. Wh-in-situ in Najdi Arabic. [online] Journals.uvic.ca. Available at: <http://journals.uvic.ca/index.php/WPLC/article/view/12030> [Accessed 21 Mar. 2018].
- Alotaibi, Mansour. 2012. A Problem with Wh-questions in Modern Standard Arabic. *Language at the University of Essex (LangUE) 2012 Proceedings 1-8*, 2012.
- Alqasem, Mohammad Fayyad M. 2017. Wh Question In-Situ and Movement in Najdi Dialect. *International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC)*. Volume 5 Issue 9, ISSN: 2321-8169.39 – 43.
- Alshammiry, Khalaf. 2016. Subject Verb Agreement in Modern Standard Arabic (MSA) and Saudi Dialect of Arabic (SA): A New Minimalist Account." *International Journal of Language and Literature* 4, no. 2. doi:10.15640/ijll.v4n2a9.
- Agbayani, Brian. 2000. Wh-subjects in English and the Vacuous Movement Hypothesis. *Linguistic Inquiry* 31.703-730. Cambridge, Mass: MIT Press.
- Agbayani, Brian. 2007. Pied-Pipe, Feature Movement, and Wh-subjects. *Wh-Movement Moving on*. 71-93." Cambridge, Mass: MIT Press.
- Bayer, Josef, and Brandner, Eleonore 2008. On wh-head-movement and the doubly-filled-comp filter. In *Proceedings of the 26th West Coast Conference on Formal Linguistics*, Charles B. Chang, and Hannah J. Haynie (eds.).87-95. Somerville: Cascadilla Proceedings Project.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1995. *Categories and transformations*. In *The minimalist program*. Cambridge, Mass.: MIT Press.219-394.
- Chomsky, Noam. 1993. *A minimalist program for linguistic theory*. In Kenneth Hale and Samuel Jay Keyser. eds. *The view from Building.20*,1-52. Cambridge, Mass: MIT Press
- Chomsky, Noam. 2000. *Minimalist inquiries: the framework*. In H. Lasnik, R. Martin, D. Michaels & J. Uriagereka (eds.) *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. Cambridge. Mass: MIT Press.89- 156.

- Glain, Stephen. 2005. *Mullahs, merchants, and militants: the economic collapse of the Arab world*. New York: Thomas Dunne Books/St. Martins Griffin.224.
- Ingham, Bruce. 1994. *Najdi Arabic: Central Arabian*. John Benjamins Publishing Company, ProQuestEbookCentral.
- Lewis, R., Robert. 2013. Complementizer Agreement in Najdi Arabic. ProQuest Dissertations and Theses.
- Lewis, R., Robert. 2013. Najd Region of Saudi Arabia [map]. In: Lewis, R., Robert. 2013. Complementizer Agreement in Najdi Arabic. ProQuest Dissertations and Theses.
- Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis* (Oxford studies in theoretical linguistics; 1). Oxford; New York: Oxford University Press.
- Prochazka, Theodore. 1988. *Saudi Arabian dialects*. London u.a.: Kegan Paul Internat,32.
- Simpson, Andrew. 2000. *Wh-Movement and the Theory of Feature Checking*. Philadelphia, PA, USA: John Benjamins Publishing Company.